Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) An ozone removal system for an aircraft, comprising:

a housing having an upstream end and a downstream end;

a substrate disposed within said housing, said substrate and said housing adapted for the passage of an air stream therethrough;

a titania catalyst support disposed on a surface of said substrate;

a first duct affixed to said upstream end of said housing, said first duct coupled to an air intake unit for providing said air stream; and

a catalytic composition disposed on said titania catalyst support, said catalytic composition consisting of:

a first catalytic component, wherein the first catalyst component is a ~~at least one~~ silver-based component selected from the group consisting of Ag (silver) metal and AgO (silver oxide), and

a second catalytic component, wherein the second catalyst component is a ~~at least one~~ palladium-based component selected from the group consisting of PdO (palladium oxide)~~,~~ and PdO2 (palladium dioxide)~~, and Pd (palladium) metal~~, wherein said catalytic composition is adapted for the catalytic removal of ozone from said air stream at temperatures within the range of from about 100 to 500º F; and wherein the ozone removal system is resistant to poisoning by sulfur and phosphorus compounds.

2. (original) The ozone removal system of claim 1, wherein said air stream has a flow rate of from about 1 to 500 pounds of air per minute.

3. (original) The ozone removal system of claim 1, wherein said catalytic composition is provided in an amount sufficient to decrease a first ozone concentration in said air stream of about 2.0 ppm to a second ozone concentration of 0.1 ppm or less.

4. (original) The ozone removal system of claim 1, wherein said air intake unit comprises a dedicated ambient air compressor of said aircraft.

5. (canceled)

6. (currently amended) An ozone removal system, comprising:

a housing having an upstream end and a downstream end;

a substrate disposed within said housing;

a layer of titania disposed on a surface of said substrate;

a catalytic composition disposed on said layer of titania, said catalytic composition consisting of:

a first catalytic component capable of efficient decomposition of ozone within a first temperature range, wherein the first catalyst component is a silver-based component selected from the group consisting of Ag (silver) metal and AgO (silver oxide),

a second catalytic component capable of efficient decomposition of ozone within a second temperature range, wherein the second catalyst component is a palladium-based component selected from the group consisting of PdO (palladium oxide) and PdO2 (palladium dioxide),

wherein ~~said first catalytic component consists essentially of Ag (silver) metal, and~~ said first temperature range is from about 100 to 300° F; and

wherein the ozone removal system is operable for at least 20,000 hours without catalyst deactivation.

7. (currently amended) The ozone removal system of claim 6, wherein said second catalytic component ~~consists essentially of~~ is PdO (palladium oxide), and said second temperature range is from about 300 to 500º F.

8. (original) The ozone removal system of claim 7, wherein said second catalytic component is reversibly deactivated at temperatures below said second temperature range.

9. (canceled)

10. (previously presented) A catalytic system for removing ozone from an air stream, comprising:

an air intake unit for providing said air stream;

a catalytic unit disposed downstream from said air intake unit;

a first duct affixed to an upstream end of said catalytic unit, said first duct adapted for channeling said air stream to said upstream end of said catalytic unit; and

a second duct affixed to a downstream end of said catalytic unit, wherein said catalytic unit comprises:

a housing;

a substrate disposed within said housing;

a layer of titania disposed on a surface of said substrate; and

a catalytic composition disposed on said layer of titania, said catalytic composition consisting of a first catalytic component adapted for

efficient removal of ozone from an air stream within a first temperature range, and a second catalytic component adapted for efficient removal of ozone from an air stream within a second temperature range, wherein said first catalytic component consists of silver, said second catalytic component consists of palladium oxide (PdO), and wherein said second catalytic component is reversibly deactivated at temperatures below said second temperature range, wherein said second temperature range is from about 300 to 500º F.

11. (original) The catalytic system of claim 10, wherein:

said second duct is coupled to an environmental control system of an aircraft, and

said second duct is adapted for channeling said air stream to said environmental control system.

12. (original) The catalytic system of claim 10, wherein:

said layer of titania is present in an amount of from about 1500 to 5000 g/ft3 of said substrate.

13. (original)The catalytic system of claim 10, wherein:

said catalytic composition is present in an amount sufficient to decrease an ozone concentration in said air stream by at least twenty fold (20X).

14. (original) The catalytic system of claim 10, wherein:

said silver is in an amount of from 50 to 500 g/ft3 of said substrate, and

said PdO is in an amount of from 25 to 300 g/ft3 of said substrate, and wherein:

said catalytic unit is adapted for providing cleansed air having an ozone concentration of 0.1 ppm or less.

15. (original) The catalytic system of claim 10, wherein:

said air stream is provided by bleed air from a gas turbine engine, and

said air stream has a temperature of at least about 100º F.

16. (original) The catalytic system of claim 10, wherein:

said air stream is provided by a dedicated ambient air compressor of an aircraft, and

said air stream has a temperature below 500º F.

17. (previously presented) An aircraft having an interior air space, comprising:

an ozone removal system including a catalytic unit, said catalytic unit in communication with said interior air space, and said catalytic unit adapted for passage of an air stream therethrough at a flow rate of from about 1 to 500 pounds of air per minute, wherein said catalytic unit consists of a first catalytic component adapted for efficient catalytic removal of ozone from said air stream over a first temperature range, and a second catalytic component adapted for efficient catalytic removal of ozone from said air stream over a second temperature range, wherein said first temperature range is from about 100 to 300º F, and wherein said second temperature range is from about 300 to 500º F, and wherein said catalytic unit further comprises:

a substrate;

a titania catalyst support disposed on said substrate; and

a catalytic composition disposed on said titania catalyst support, said catalytic composition consisting of said first catalytic component

and said second catalytic component, said first catalytic component consisting essentially of silver, and said second catalytic component consisting essentially of PdO (palladium oxide).

18. (original) The aircraft of claim 17, wherein said ozone removal system further comprises an air intake unit for providing said air stream to said catalytic unit, and wherein said air intake unit comprises a dedicated ambient air compressor.

19. (original) The aircraft of claim 17, wherein said interior air space includes an aircraft cabin, and said catalytic unit is capable of catalytically removing ozone from said air stream to provide cleansed air, having an ozone level of 0.1 ppm or less, to said aircraft cabin.

20 -38. (canceled)